Remarks

The Office Action mailed April 2, 2003 has been received and reviewed. Claims 21-22, 25-26, 29-30, 33-34, and 37-38 having been amended, and claims 1-4, 11-12, 23-24, 27-28, 31-32, 35-36, 39-40, and 43-44 having been cancelled, the pending claims are claims 9-10, 21-22, 25-26, 29-30, 33-34, 37-38, and 41-42. Reconsideration and withdrawal of the rejections are respectfully requested

Claims 21, 25, 29, 33, and 37 have been amended to include all the limitations of the product claim 9. Claims 22, 26, 30, 34, and 38 have been amended to include all the limitations of the product claim 10.

The Examiner is thanked for the courtesies extended to the undersigned during the telephone conference of March 26, 2003, where the rejection under 35 U.S.C. §112, first paragraph, was discussed.

Status of claims

The Office Action Summary sheet mailed with the Office Action on April 2, 2003, indicates that claims 9-10 and 41-42 are rejected; however, claims 9-10 and 41-42 are not part of the rejection under 35 U.S.C. §112, first paragraph, the sole rejection present in the Action. As claims 9-10 and 41-42 do not stand rejected, they are in condition for allowance.

Request for Rejoinder under 37 CFR §1.121

Claims 21-40, directed to a process for using a product, were previously withdrawn from examination pursuant an election filed in response to the Restriction Requirement mailed February 11, 2002. Claims 23-24, 27-28, 31-32, 35-36, 39-40 have been canceled without prejudice, and claims 21-22, 25-26, 29-30, 33-34, and 37-38 are amended herewith to include all the limitations of the examined product claims. Pursuant to the procedures set forth in the Official Gazette notice dated March 26, 1996 (1184 O.G. 86), withdrawal of the restriction requirement and rejoinder and examination of the previously

withdrawn claims is respectfully requested. Rejoinder of these claims was also requested in the Responses submitted January 28, 2003, and August 22, 2002.

The 35 U.S.C. §112, First Paragraph, Rejection

The Examiner rejected claims 1-4, 11, 12, 43, and 44 under 35 U.S.C. §112, first paragraph. This rejection is respectfully traversed. To further prosecution of the present application, claims 1-4, 11-12, and 43-44 are canceled.

Summary

It is respectfully submitted that the pending claims 9-10, 21-22, 25-26, 29-30, 33-34, 37-38, and 41-42 are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted for
Board of Regents, The University of Texas System
By
Mueting, Raasch & Gebhardt, P.A.
P.O. Box 581415
Minneapolis, MN 55458-1415
Phone: (612) 305-1220
Facsimile: (612) 305-1228
Customer Number 26813

26813

PATENT TRADEMARK OFFICE

Date July 2, 2003

By: David L. Provence

David L. Provence
Reg. No. 43,022
Direct Dial (612)305-1005

CERTIFICATE UNDER 37 CFR §1.8:
The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Assistant Commissioner for Patents, Mail Stop AF, P.O. Box 1450, Alexandria, VA 22313-1450, on this 2nd day of July, 2003, at 3:48pm (Central Time).

By: Sara E. Olson
Name: SARA E. OLSON

APPENDIX A - SPECIFICATION/CLAIM AMENDMENTS INCLUDING NOTATIONS TO INDICATE CHANGES MADE
Serial No.: 09/864,866
Docket No.: 265.00170101

Amendments to the following are indicated by underlining what has been added and bracketing what has been deleted.

In the Claims

For convenience, all pending claims are shown below.

1. Cancel

2. Cancel

3. Cancel

4. Cancel

9. An isolated polypeptide comprising:

an amino acid sequence selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43; and

a nuclear or mitochondrial targeting sequence.

10. An isolated polypeptide comprising:

an amino acid sequence selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43; and

an exogenous nuclear or mitochondrial targeting sequence.

11. Cancel

12. Cancel

21. [THREE TIMES AMENDED] A method for increasing the repair rate of damaged bases in a cell, the method comprising introducing to a cell exposed to or at risk of exposure to an agent that damages DNA a composition comprising an amount of an isolated polypeptide effective to increase the repair rate of damaged DNA in the cell compared to a cell that does not comprise the polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises a nuclear or mitochondrial targeting sequence.

22. [THREE TIMES AMENDED] A method for increasing the repair rate of damaged bases in a cell, the method comprising introducing to a cell exposed to or at risk of exposure to an agent that damages DNA a composition comprising an amount of an isolated polypeptide effective to increase the repair rate of damaged DNA in the cell compared to a cell that does not comprise the polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises an exogenous nuclear or mitochondrial targeting sequence.

23. Cancel

24. Cancel

25. [THREE TIMES AMENDED] A method for treating mutagenesis in a subject, the method comprising introducing to a subject exposed to or at risk of exposure to an agent that damages DNA a composition comprising an effective amount of an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase

activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises an nuclear or mitochondrial targeting sequence.

26. [THREE TIMES AMENDED] A method for treating mutagenesis in a subject, the method comprising introducing to a subject exposed to or at risk of exposure to an agent that damages DNA a composition comprising an effective amount of an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises an exogenous nuclear or mitochondrial targeting sequence.

27. Cancel

28. Cancel

29. [THREE TIMES AMENDED] A method for treating immunosuppression in a subject, the method comprising introducing to a subject exposed to or at risk of exposure to an agent that damages DNA a composition comprising an effective amount of an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises a nuclear or mitochondrial targeting sequence.

30. [THREE TIMES AMENDED] A method for treating immunosuppression in a subject, the method comprising introducing to a subject exposed to or at risk of exposure to an agent that damages DNA a composition comprising an effective amount of an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises an exogenous nuclear or mitochondrial targeting sequence.

31. Cancel

32. Cancel

33. [THREE TIMES AMENDED] A method for treating tumor formation in a subject, the method comprising introducing to a subject exposed to or at risk of exposure to an agent that damages DNA a composition comprising an effective amount of an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises a nuclear or mitochondrial targeting sequence.

34. [THREE TIMES AMENDED] A method for treating tumor formation in a subject, the method comprising introducing to a subject exposed to or at risk of exposure to an agent that damages DNA a composition comprising an effective amount of an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID

NO:43, and wherein the polypeptide further comprises an exogenous nuclear or mitochondrial targeting sequence.

35. Cancel

36. Cancel

37. [THREE TIMES AMENDED] A method for treating apoptotic cell formation in a subject, the method comprising introducing to a subject exposed to or at risk of exposure to an agent that damages DNA a composition comprising an effective amount of an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises a nuclear or mitochondrial targeting sequence.

38. [THREE TIMES AMENDED] A method for treating apoptotic cell formation in a subject, the method comprising introducing to a subject exposed to or at risk of exposure to an agent that damages DNA a composition comprising an effective amount of an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence [having pyrimidine glycosylase activity, wherein the amino acid sequence has at least about 60 % identity with an amino acid sequence] selected from the group consisting of SEQ ID NO:41, SEQ ID NO:42, and SEQ ID NO:43, and wherein the polypeptide further comprises an exogenous nuclear or mitochondrial targeting sequence.

39. Cancel

40. Cancel

41. A composition comprising the polypeptide of claim 9 and a pharmaceutically acceptable carrier.

42. A composition comprising the polypeptide of claim 10 and a pharmaceutically acceptable carrier.

43. Cancel

44. Cancel